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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/849,291
Filing Date: May 04, 2001
Appellant(s): FRIEDLANDER ET AL.

MAILED

JAN 29 2008

GROUP 3600

Mr. Hunter E. Webb
Reg. 54,593
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 5 November 2007 appealing from the Office action mailed 1 June 2007.

(1) Real Part of Interest

A statement identifying by name the real part of interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after non-final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is

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correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Guinta US 6,161,101

Curtis, Bill; Hefley, William E; Miller, Sally; "People Capability Maturity Model(SM)", Sept 1995, Software Engineering Institute, CMU/SEI-95-MM-02, sections O, L1-L4, (hereinafter **Curtis**).

Bobic, Michael; Davis, Eric; Cunningham, Robert; "The Kirton adaption-innovation inventory", Spring 1999, Review of Public Personnel Administration", v19n2, pp. 18-31, Dialog 01991101 47253077 (hereinafter **Bobic**)

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims: The ground(s) for rejection are reproduced below from the Non-final Office Action, mailed 24 January 2007, and are provided here for the convenience of both the Appellant and the Board of Patent Appeals:

Claim Rejections - 35 USC § 112

12. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

13. Claims 1-33 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for some companies as provided by way of example does not reasonably provide enablement for any organization having multiple hierarchies (page 3 line 21-23). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

See the specification on page 14 line 24 – page 15 line 2, an internet company and a government agency are discussed as examples for stiffness modifiers. Furthermore, an example of a required score is given on page 17 line 4-8 – however, the specification does not address what type of organization nor what type of change being implemented that this applies to. Additionally, the types of questions to be asked of different types of hierarchies (as defined in the specification on page 6 under “Definitions”) is not provided. Nor is it provided how a response would be provided to these questions in a way that is enabling for the scope of any organization (The examiner notes that on page 14 line 6-9, a sample response value is given in terms of values, however given that the specification states that these would be totaled to sum up to a raw score and also states on page 13 line 12 that there could be any number of responses – then how would someone using this invention then apply the guidelines of

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the final score given on page 17 line 1-7? If there are any number of responses, which are valued and then summed; and multiplied by a modifier; and yet, the maximum score is given as difference above 30, above which adverse reactions to the change would occur, then how would a user know for a given business organization what questions to ask, how to value them, which stiffness modifier to use, and which score these quantified and modified scores are to be compared to? The specification is not thus not enabled for the scope as laid out for organizations with a hierarchy. The examples given in the specification are not even consistent with each other. For example, sample stiffness modifiers are suggested for an internet company and a government agency, however nowhere else in the specification are examples provided of what questions to ask, how they are to be valued, and to what values these two different types of organizations. (Additionally, the examiner would respectfully point out that lumping all government agencies into one bracket as being generically 'resistant to change', does not fly, because some government agencies are more resistant to change than others). The examiner contrasts the disclosures of Guinta (see the detailed tables in the end of the specification) and Curtiss (see page O-54 and the details of how to apply the CMM for people and the tables in columns 14 and 15 and Figure 7A/7B of Guinta for the questions to be asked to meet ISO requirements) with the limited disclosure provided by the applicants as to how to use their invention.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. **Claims 1, 3-5, 11, 12, 15, 17, 19, 21, 23, 25, 26 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Guinta US 6,161,101** in view of **Curtis**, Bill; Hefley, William E.; Miller, Sally; "People Capability Maturity ModelSM", Sept 1995, Software Engineering Institute, CMU/SEI-95-MM-02, sections O, L1-L4, (hereinafter **Curtis**).

Regarding **Claim 1**, Guinta teaches:

In preparation for implementing a predetermined proposed technical change in hardware or software used in a working environment of the organization;

Column 3 line 51-55, corrective action (i.e. implementing a technical change in the organization) is prior to implementing a change because Guinta's system is providing an evaluation to determine where corrective actions need to be applied. Guinta teaches a working environment of the organization in that he addresses providing an organizational assessment of a business (see column 4 line 35-40, the people in the purchasing office are working in purchasing). (The examiner notes that

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this limitation is intended use for functional limitations that follow, i.e. the querying, quantifying, modifying, comparing and outputting).

querying a hierarchy in the organization to obtain a baseline response regarding skills and training of members of the hierarchy based on those that are needed to implement the technical change;

Column 3 line 61-65, assessor determines who in the organization should be queried in order to provide an organizational assessment. This would include identifying a hierarchy (i.e. chain of command) in the organization whose input would be entered into the system. E.g. column 4 line 34-36 – individuals in the hierarchy identified to provide assessment input.

Column 5 line 11-13, questions are posed to obtain an input into the system (i.e., baseline response).

Column 19 line 15, training is identified as an area to be queried regarding needs. This section also includes “qualification for jobs” i.e. skills needed. The phrase “to implement the technical change” is intended use.

Automatically quantifying the baseline response into a raw score that indicates the skills and training by assigning a value to each baseline response;

column 7 line 45-47, the input (i.e. baseline response) can be filtered using a variety of mathematical operations to be quantified (i.e. quantified into a raw score).

Column 8 line 10-15, values can be assigned to a baseline response, e.g. 1-10 scale that is indicative of the assessed answer.

Figures 7A/7B note that a response to a question is automatically quantified by the person using the variable slider, i.e. 1 to 100, to indicate a response to the question "how well does your process address this issue". – note that the questions of Table 4.18 Training would also be quantified in the same way.

modifying the raw score using at least one modifier that relates to how responsive members of the hierarchy traditionally are to change to yield a skill score; and

column 9 line 44-47, scores can be modified based on a wide variety of factors.

Column 6 line 54-56, the second input (i.e. modifier) reflects how extensively the organization is deployed (according to current practice, i.e. traditional practice) to address the issue (i.e. relates to how responsive members of the hierarchy traditionally are to a change). See also column 6 line 56-63 for a discussion of how widely deployed a system is to address an issue, i.e. in relation to response to a change. –see column 7 line 35 for an example of how a modifier is used to modify a raw score.

comparing the skill score to a predetermined required score to determine strengths and weaknesses in the organization.

Column 11 line 45-46, the resulting scores (i.e. skill scores) are compared to selected thresholds (i.e. predetermined required score) to determine specific problem areas. If the resulting scores are lower than the threshold scores, then the system predicts there is a deficiency in the response in that particular area.

Outputting the predicted response to the technical change.

Column 12 line 23-27, the corrective actions noting the weaknesses of the organization (i.e. the predicted response to the technical change) are outputted by the system as reports.

Guinta teaches the above to use a comparison to determine strength and weaknesses in an organization so corrective responses can address the weaknesses. Some of the weaknesses identified address technical aspects of the organization.

Guinta does not teach using a comparison to determine a predicted response to a technical change and does not teach performing an assessment in anticipation of a technical change.

(The examiner notes that the phrase "in preparation for implementing a predetermined proposed technical change in hardware or software used in a working environment of the organization:" is non functional descriptive material. The phrase is not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the specific data (i.e. they do not affect the querying, quantifying, modifying and comparing steps). Further, the structural elements remain the same regardless of the specific data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ

401, 404 (*Fed. Cir. 1983*); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (*Fed. Cir. 1994*); 2106.)MPEP

However, Curtis teaches using a comparison to determine a predicted response to a technical change and performing an assessment in anticipation of a technical change (page xiv para 2, the management of people resources, i.e. which includes the CMM assessment taught by Curtiss, is for the development of software systems. The development of software systems is a technical change.)

Curtis teachings address the adaptation of the capability maturity model (CMM) to predict how organizations improve their abilities to work together as an organization in the development of software (see page O45 para 4, "workforce capability is an important predictor of business performance"). Software development is technical in nature where the interaction between individuals and teams is technical in nature (see page O6 para 2). The CMM model predicts how an organization will perform when developing new software (i.e. in response to a technical change) and also how an organization will perform in response to attaining higher levels of maturity in their technical processes for developing software (see page O7 para 1).

Both Curtis and Guinta address how to improve an organization's processes.

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Guinta addresses assessing and analyzing an organization's performance, including technical performance. Guinta does not address how an organization responds to technical change. Curtis teaches assessing an organization to determine both how the organization functions at different levels of maturity (i.e. 5 maturity levels) and how the organization will perform in response to being moved from one level to another (i.e. a technical change). Curtis teaches that the roots of the CMM model go back to the early 1980's and are a further development of a continuous improvement philosophy that originated with Philip Crosby (see page O6 para 4). Curtis teaches that his approach improves the way in which organizations function (in this case, in how effective they are in software development).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Guinta, regarding providing assessments and scoring of an organization's capabilities to include the step of using a comparison to predict how the organization will respond to a technical change, because it would provide a proven continuous improvement framework to improve process improvement in a large organization.

Regarding **Claim 3**, Guinta teaches:

querying a hierarchy in the organization;

Column 3 line 61-65, assessor determines who in the organization should be queried in order to provide an organizational assessment. This would include

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identifying a hierarchy (i.e. chain of command) in the organization whose input would be entered into the system. E.g. column 4 line 34-36 – individuals in the hierarchy identified to provide assessment input.

Column 5 line 11-13, questions are posed to obtain an input into the system (i.e.. baseline response).

and receiving a set of hierarchy responses to the querying to yield the baseline response.

Column 4 line 39-41, any number of different individuals from different departments, including hierarchies in that department, may be select to enter inputs into the system. The total group of responses from these individuals would comprise a set of responses.

Column 7 line 52-54, e.g. a set of 100 different issues were assessed (i.e. responses received into system) from 10 assessors.

Column 5 line 11-13, questions are posed to obtain an input into the system (i.e.. baseline response). Any number of individuals in a hierarchy can provide input into the baseline response.

Regarding **Claim 4**, Guinta teaches:

the step of providing queries organized into query topics for querying the hierarchy.

Column 13 Table 1, this table illustrates an example of how the system disclosed by Guinta has queries organized into topics for querying the hierarchy. For example, 4.1 is the topic of 'Management Responsibility' and 4.2 is a set of queries addressing the 'Quality System'.

Regarding **Claim 5**, Guinta teaches:

wherein the query topics comprise:

leadership,

Column 13 table 4.1 "Management Responsibility" deals with leadership responsibilities within the management function in queries 1-7.

planning,

column 13 table 4.1 "Management Responsibility" deals with planning in queries 8.1-8.4.

administration,

column 18 table 4.16 'Control of Quality Records' deals with the overall administration of quality recordkeeping.

operations,

Column 20 table II.3 – "Manufacturing Capabilities" is an operations category.

quality assurance,

Column 19 table 4.17 – "Internal Quality Audits" deal with quality assurance.

communications,

Column 19 table 4.19 – ‘Servicing’ ensures that data is communicated to supplier, manufacturing, engineering and design activities

project management, and

column 14 table 4.4 “Design Control” deals with project management within the design context, e.g. query 1 “Design plans for each project have been established and responsibility assigned”.

training.

Column 19 table 4.18 – “Training”

Claims 11, 12, 15, 21, 23, 25 and 30 recite similar limitations as those recited in **Claims 1 and 3-5** above, and are therefore rejected under the same rationale.

Regarding **Claim 17**, Guinta teaches:

wherein the program code configured to quantify converts the inputted responses into values to yield the raw score.

Column 5 line 42-46, a user can input on a sliding scale on the computer their perception of how well the organization performs on an issue. The sliding scale is used by the computer program (i.e. program code) to convert the inputted response into a value for the inputted value – see Figure 7 and column 10 line 44-47

Regarding **Claim 19**, Guinta teaches:

wherein the program code configured to compare determines the mathematical difference between the skill score and the predetermined required score to yield the predicted response.

Column 11 line 40-46. The inputted response is converted into a numerical value. A predetermined threshold value is compared with the numerical value to determine if the threshold value is exceeded. The only way to determine if the threshold value is exceeded is to determine the mathematical difference between the numerical value (i.e. skill score) and the threshold value (i.e. predetermined required score). If the threshold values are not exceeded, resulting in a negative difference (i.e. predicted response), this means that the organization would have a weakness requiring corrective action – see column 11 line 47-50 and column 11 line 56-58. The above runs on a computer with code – see Figures 1, 7a & 7b & column 3 line 25-31.

Claim 26 recites similar limitations as those recited in **Claim 19** above, and is therefore rejected under the same rationale.

16. **Claims 2, 7-10, 14, 16, 22, 24, 27 and 31-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Guinta** in view of **Curtis**.

Curtis, Bill; Hefley, William E.; Miller, Sally; "People Capability Maturity ModelSM", Sept 1995, Software Engineering Institute, CMU/SEI-95-MM-02, sections O, L1-L4.

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Regarding **Claim 2**, Guinta all the limitations of Claim 1 above, and also teaches:

recommending a corrective action based on the predicted response,

Column 12 line 25-26, the system provides a report recommending corrective actions based on the previous assessment of the weaknesses of the organization.

Guinta does not teach:

and implementing the technical change

Curtis teaches:

and implementing the technical change

Page 041 paragraph 2 line 1-3, an action team is formed to implement the solution to remedy weakness(s) identified by the maturity model assessment.

Guinta and Curtis both address identifying deficiencies and opportunities for improvement within organizations, thus both Guinta and Curtis are analogous art.

Curtis teaches that applying CMM principles to an improvement program that implements technical changes recommended by a diagnostic or assessment program results in an organization having reduced turnover and a greater readiness to perform in fast-paced environments (page O-40 paragraph 1 line 1-2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Guinta, regarding providing organizational

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assessments and recommended corrective actions, to include implementing the recommended corrective actions, as taught by Curtis, because it would result in an organization having reduced turnover and a greater readiness to perform in fast-paced environments.

Regarding **Claim 7**, Guinta teaches that large entities such as corporations, professional associations and governmental units conduct assessments within their organizations, i.e. hierarchies (column 1 line 19-21).

Guinta does not teach:

wherein the hierarchies comprise senior management, mid-level management, administrators, analysts, operations, project management, and end users.

The examiner takes Official Notice that it is old and well known in the art of management for large organizations such as corporations, associations and governmental units to contain hierarchies comprised of:

Senior management -most firms contain a hierarchy at the top comprising a chairman or CEO then on down to VP or Senior VP and on down to director level positions. Most corporate firms distinguish the senior management hierarchy by determining incentive compensation of company stock, i.e., if you receive or are eligible to receive IC, then an individual is considered senior management

Mid-level management – usually characterized by the director and manager and first line supervisory positions. These positions are differentiated from senior management positions in that they do not receive stock or IC options.

Administrators – characterized by those who are either in charge of administering and/or supervising support positions such as office staffing, secretarial or office assistant pools.

Analysts – characterized by a business where analyzing and responding to information is primary to the business. Good examples of organizations containing hierarchies of analysts include financial firms and government intelligence groups dealing with national security issues.

Operations – characterized by those organizations involved in manufacturing or supply chain management where large numbers of individuals are organized into hierarchies due to specialization of labor.

Project management – characterized by organizations where conducting projects is a primary goal. Best examples here exist in construction, firms focusing on product development or defense-related government procurement (e.g. weapons systems).

End users – characterized by organizations where products are distributed down a hierarchy of distribution channels. A good example of this is a supply chain where a small component supplied by an organization is assembled into a progressively larger product and where each group forms a hierarchy. For example, Tier 1, 2 and 3 automotive suppliers form a hierarchy of end users.

These various hierarchies represent a broad spectrum of functional areas that are old and well known in the art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Guinta regarding providing organizational assessments, to include the hierarchies of senior management, midlevel management, administrators, analysts, operations, project management and end users, because it would ensure a complete and accurate organizational assessment.

Regarding **Claim 8**, Guinta teaches all the limitations of Claim 1 above, but does not teach:

wherein the querying step comprises the step of querying each of the hierarchies in the organization, and wherein a separate baseline response is obtained for each hierarchy and for the organization.

Curtis teaches:

wherein the querying step comprises the step of querying each of the hierarchies in the organization, and wherein a separate baseline response is obtained for each hierarchy and for the organization

Page O-34 paragraph 2 line 4-6, a capability maturity assessment is a query of the hierarchies in an organization. It focuses on how hierarchies within an organization

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are performing with respect to each of the People-CMM practice areas. In other words, a baseline for each organization hierarchy is established.

Page O-34 paragraph 4 line 3-4, the maturity level, or baseline, for an overall organization, is the lowest level of maturity that has been achieved by any of the hierarchies in the organization.

Guinta and Curtis both address identifying deficiencies and opportunities for improvement within organizations, thus both Guinta and Curtis are analogous art.

Curtis teaches that applying CMM principles to an improvement program that implements technical changes recommended by a diagnostic or assessment program results in an organization having reduced turnover and a greater readiness to perform in fast-paced environments (page O-40 paragraph 1 line 1-2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Guinta, regarding providing organizational assessments and recommended corrective actions, to include evaluating baseline assessments for hierarchies within the organization and for the overall organization, as taught by Curtis, because it would result in an organization having reduced turnover and a greater readiness to perform in fast-paced environments.

Regarding **Claim 9**, Guinta and Curtis teach all the limitations of Claim 8 above.

Guinta also teaches:

wherein each separate baseline response is quantified, modified and compared to a predetermined required score.

Column 7 line 45-47, the input (i.e. baseline response) can be filtered using a variety of mathematical operations to be quantified (i.e. quantified into a raw score).

Column 9 line 44-47, scores can be modified based on a wide variety of factors

Column 11 line 45-46, the resulting scores (i.e. skill scores) are compared to selected thresholds (i.e. predetermined required score) to determine specific problem areas. If the resulting scores are lower than the threshold scores, then the system predicts there is a deficiency in the response in that particular area.

Claims 10, 14, 16, 22, 24, 27 and 31-33 recite similar limitations as those recited in **Claims 2 and 7-9** above, and are therefore rejected under the same rationale.

17. **Claims 6, 13, 20 and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Guinta** in view of **Curtis**.

Regarding **Claim 6**, Guinta teaches:

wherein each query comprises a set of questions,

Column 5 line 1-2, a series of questions are posed as part of a single query.

with each question in the set of questions in a yes/no format.

Column 5 line 62, yes/no inputs can be input into query.

Guinta does not teach inputting a 'sometimes' answer into the query.

Official Notice is taken that it is old and well known in the art for queries to have an answer as "sometimes". This allows for the possibility that the person answering the question wishes to indicate an answer that conveys an incident occasionally occurring.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Guinta, regarding providing a yes/no answer to a query, to include the step of providing the possibility of a selection being 'sometimes', because it would allow a person to answer a question to indicate something occurring occasionally.

Claims 13, 20 and 29 recite similar limitations as those recited in **Claim 6** above, and are therefore rejected under the same rationale.

18. **Claims 18 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Guinta** in view of **Curtis** and further in view of **Bobic**.

Bobic, Michael; Davis, Eric; Cunningham, Robert; "The Kirton adaption-innovation inventory", Spring 1999, Review of Public Personnel Administration, v19n2, pp.18-31, Dialog 01991101 47253077.

Regarding **Claim 18**, Guinta teaches:

wherein the program code configured to modify performs a mathematical operation on the raw score with a modifier to yield the skill score,

Column 9 line 44-46, the numerical input (i.e. raw score) can be modified using a wide variety of factors to correlate the response with an output desired. This would include using a mathematical operation to revise (i.e. modify) the numerical input so that the result is correlated with the input information.

The above runs on a computer with code – see Figures 1, 7a & 7b & column 3 line 25-31.

Guinta does not teach:

and wherein the modifier comprises at least one of a stiffness modifier that relates to how a particular type of organization traditionally responds to change and an individual modifier that relates to how a particular individual traditionally responds to change.

Bobic teaches:

and wherein the modifier comprises at least one of a stiffness modifier that relates to how a particular type of organization traditionally responds to change and an individual modifier that relates to how a particular individual traditionally responds to change.

Page 3 paragraph 5 line 1-6, the KAI provides scores that measure how an individual traditionally responds to change by helping to quantify them as either an innovator or adaptor – see also page 2 paragraph 5 line 4-6, managers are scored on the KAI scale.

Bobic, Curtis and Guinta both address assessing organizational effectiveness, thus Bobic, Curtis and Guinta are all analogous art.

Bobic teaches that measuring a particular individual's resistance to change in characterizing them as innovators or adaptors is essential to balancing team membership in an organization so that organizational effectiveness is high in responding to change. (page 3 paragraph 1 line 1-9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of Guinta and Curtis, regarding scoring an organization with an initial score and a modifier, to include where the modifier relates to how a particular individual traditionally responds to change, as taught by Bobic, because it would enable an organization to effectively respond to change.

Claim 28 recites similar limitations as those recited in **Claim 18** above, and is therefore rejected under the same rationale.

(10) Response to Argument

3. The applicant's arguments have been fully considered but are not persuasive.
4. The applicant's argue with respect to Claims 1-33 on page 7 that the claims satisfy the enablement requirement.

The examiner respectfully disagrees.

The examiner points the applicant to the in re Wand factors for determining enablement (See MPEP 2164.01a). These factors are used to determine if the experimentation necessary to practice the invention, as contained in the disclosure, is undue. They are:

- (A) The breadth of the claims;
- (B) The nature of the invention;
- (C) The state of the prior art;
- (D) The level of one of ordinary skill;
- (E) The level of predictability in the art;
- (F) The amount of direction provided by the inventor;
- (G) The existence of working examples; and
- (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

An analysis of each of these “Wand” factors is provided in turn.

(A) The breadth of the claims.

MPEP 2164.08 sets forth that the examiner needs to consider the scope of the claims as a whole in comparison to what is set forth in the specification. The purpose of this comparison is to ensure that the claims do not provide a broader coverage, when patented, than what is provided in the specification. In the case where they do provide broader coverage, then the specification is not enabled with respect to that claim. (see MPEP 2164.08 and *Amgen v. Chugai Pharmaceutical Co.*, 927 F.2d 1200, 18 USPQ2d 1016 (Fed. Cir.), cert. denied, 502 U.S. 856 (1991)¹.) In this case, the steps set forth in the independent claims functionally provide a querying step, a quantifying step, a modifying step, a comparing step and an outputting step. The claims describe providing a query where a response is received; this response is automatically quantified into a raw score. This raw score is then modified by a modifier to result in a skill score. The skill score is then compared to a required score to determine a response. This result is

¹ In the *Amgen* case, the patent claims were directed to a purified DNA sequence encoding polypeptides which are analogs of erythropoietin (EPO). The Court stated that: *Amgen has not enabled preparation of DNA sequences sufficient to support its all-encompassing claims. . . . [D]espite extensive statements in the specification concerning all the analogs of the EPO gene that can be made, there is little enabling disclosure of particular analogs and how to make them. Details for preparing only a few EPO analog genes are disclosed. . . . This disclosure might well justify a generic claim encompassing these and similar analogs, but it represents inadequate support for Amgen's desire to claim all EPO gene analogs. There may be many other genetic sequences that code for EPO-type products. Amgen has told how to make and use only a few of them and is therefore not entitled to claim all of them.* (emphasis added)

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then outputted. (The examiner notes that much of the language describing the types of scores and values is nonfunctional descriptive material because they are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the specific data. Further, the structural elements remain the same regardless of the specific data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); 2106.)MPEP

Essentially, eliminating the nonfunctional descriptive material results in the claim's functional steps of querying, receiving a score, automatically quantifying that score, modifying it, comparing it to another score to determine a response and outputting the response.

The specification only contains limited examples as to how to query an organization to **receive a response** (i.e. it does not say what surveys should be used, what 'responses' are), **quantify the response into a raw score** (i.e., how are the answers to those raw scores quantified, e.g. what scales are used to quantify a subjective response of "I disagree" versus "I agree" into a raw score are not provided), **modify the score** (i.e. what stiffness modifiers are to be used, what numerical values as to relating to the different resistances to change in the organization, are not provided – only two regarding an internet company and a government agency are suggested exemplarily), **compare the score to a required score** (i.e. the threshold for determining

what one quantified and modified response versus a required score is not given in the specification, only that one should be used – the applicant notes on the top of page 16 that this required score depends on a number of factors, but does not set forth how those factors actually impact what the required score should be).

The examiner notes that the receiving, quantifying, modifying and comparing to determine steps, as recited, read on prior art besides change management. For example, in surveys, it is common practice to receive a response and quantify it into a score – the 5-point Likert scale is an extremely well known way this is done (The examiner notes that this scale quantifies responses 1 to 5 according to varying subjective qualifiers of, e.g. “strongly disagree”, “disagree”, “neutral”, “agree” and “strongly agree”). The modifying step is essentially and functionally the same as performing a weighted average of scores received in a survey – this is done to remove bias in the responses. Comparing and determining is also old and well known. Comparing customer satisfaction survey scores to a threshold to determine if a customer satisfaction metric meets corporate goals is comparing a score to a predetermined score to determine a response. Therefore, the claimed steps as recited functionally provide for a broader scope and breadth than what is provided for in the specification. Thus according to In re Wand factor (A), the disclosure is not enabled.

(B) The nature of the invention:

MPEP 2164.05a sets forth that the examiner needs to consider the nature of the invention in determining enablement. The purpose of this is to determine what would

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have been an enabling disclosure at the time of the invention. The nature of the invention is change management. Specifically, ascertaining in a quantitative way whether an organization is capable of implementing a change in the organization. As noted on page O-54 and the details in the tables in columns 14 and 15 (also Figure 7A/7B), the nature of organizational diagnostics at the time of the invention require much specificity in order to practice in this area. This is exemplified by the lengthy detail of the Curtiss document and by the detailed questions provided in the tables in Guinta. Because of the demonstrated specificity required by the nature of the invention (i.e. a quantitative approach to performing a change management diagnostic) and the lack of supporting detail in the disclosure, according to In re Wand factor (B), the disclosure is not enabled.

(C) The state of the prior art:

The state of the prior art is what one skilled in the art would have known, at the time the application was filed, about the subject matter to which the claimed invention pertains.

The state of the prior art in change management at the time of filing of the invention (May 4, 2001) is reflected in one of the articles used in the rejection below, the Curtis Reference (The People Capability Maturity Model – Sept 1995). This document contains what one of ordinary skill in the art would have required in the way of instruction in order to apply a methodology to ascertain how mature an organization was in respect to human resources attributes (relevant to the instant application, which is

measuring an organization's response to change). This document is exquisitely detailed at 441 pages. Its publication date of 1995 is well in advance of the application date of the instant application. An updated version of this document appeared in July of 2001, shortly after the application date of the instant application – this document is even more detailed at 735 pages. While the examiner recognizes that the number of pages in itself does not necessarily reflect what was state of the art at the time of the invention, the detail necessary to practice assessment of an organization's people maturity does reflect on the state of the prior art. This detail is exemplified by page O-54 and the details of how to apply the CMM for people management. The examiner also points out the specificity required in the prior art as exemplified by Guinta from the tables in columns 14 and 15 and Figure 7A/7B for the questions to be asked to meet ISO requirements.

Therefore, the claimed steps as recited require a high level of specificity to practice the invention by what was shown in the prior art of change management at the time of the invention than what is provided for in the specification. Thus according to *In re Wand* factor (C), the disclosure is not enabled.

(D) The level of ordinary skill:

MPEP 2164.05(b) sets forth that "the specification need not disclose what is well-known to those skilled in the art and preferably omits that which is well-known to those skilled and already available to the public. *In re Buchner*, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991); *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*,

802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986), cert. denied, 480 U.S. 947 (1987); and Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 1463, 221 USPQ 481, 489 (Fed. Cir. 1984).

Although it would have been recognized that there is resistance to organizational change within one of ordinary skill in the art, the identification of a specific numerical threshold tied to the querying, quantifying, modifying and comparing steps as cited, would not have been within the reach of one of ordinary skill. This numerical threshold would have required undue experimentation to determine, for a particular organization (type of), what that threshold number would have been. Therefore, according to *In re Wand* factor (D), the specification is not enabled.

(E) The level of predictability in the art:

MPEP 2164.03 sets forth that “the amount of guidance or direction needed to enable the invention is inversely related to the amount of knowledge in the state of the art as well as the predictability in the art. *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970).” The level of predictability is important because it determines how much information needs to be explicitly stated in the application.

In this case, while the idea of resistance to change in an organization is known, standards (i.e. that is standard ‘values’) that convey what a threshold to resistance would be is not known. For example, the Capability Maturity Model of the Software Engineering Institute, which was initially developed in the 1990’s (and relies further back on pioneering work done by Phil Crosby to determine a quality maturity matrix),

develops a 5 point scale to rate organization's maturity. To provide direction to those of ordinary skill, it requires a complex methodology and detailed steps in order to provide essentially, how to provide 5 different ratings to an organization. The specificity and detail provided by the Curtis document and the tables provided in the Guinta reference provide an indication that there was a lack of predictable knowledge regarding quantifying of resistance to organizational change at the time of the invention. Neither the Curtiss nor the Guinta references (nor any other cited) do not provide guidance as to how to quantify a threshold value that determines if an organization is resistant to change. The level of predictability in quantifying a resistance to change for the purpose of diagnosing and preparing an organization for change is relatively low, because the prior art does not widely address this concept in such a way that one of ordinary skill would readily understand what threshold values should be, or even could be, used. As it is currently disclosed in the instant application, a person of ordinary skill in the art would require undue experimentation to determine what that threshold value should be (and further, how to query, quantify and modify an organizational hierarchy's response to provide a valid comparison to this threshold). Therefore, according to *In re Wand* factor (E), the specification is not enabled.

(F) The amount of direction provided by the inventor;

MPEP 2164.03 sets forth that "The law requires an enabling disclosure for nascent technology because a person of ordinary skill in the art has little or no knowledge independent from the patentee's instruction. Thus, the public's end of the

bargain struck by the patent system is a full enabling disclosure of the claimed technology.”

In this case the technology provided by the invention, namely the quantification of a threshold value measuring resistance to change and the quantification and modification of query results to determine if an organization is resistant to change requires instruction from the inventor(s) as to how to make and use this concept. Since the instructions in the specification for what these values would be for the different organizations described is lacking, and also the querying, quantifying and modifying leading up to the threshold comparison is equally lacking, a person of ordinary skill in the art would be at a loss for (1) how to measure (i.e. query, quantify and modify) the organization's value measuring resistance to change and (2) what threshold value determines whether an organization is resistant to change or not. Therefore, according to In re Wand factor (F), the specification is not enabled.

(G) The existence of working examples;

MPEP 2164.02 sets forth that “the specification need not contain an example if the invention is otherwise disclosed in such manner that one skilled in the art will be able to practice it without an undue amount of experimentation. In re Borkowski, 422 F.2d 904, 908, 164 USPQ 642, 645 (CCPA1970).

The lack of a working example is a factor to be considered when the prior art is unpredictable and undeveloped. As discussed above, the art of change management, specifically addressing the quantification of the concept of a resistance to change, is not

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developed and is unpredictable. While the specification provides limited examples, (e.g. the stiffness modifier for an internet company versus a government agency on pages 14-15), the number of examples to practice the invention, in its entirety for its stated purpose, are lacking. The absence of examples in the specification would thus require one of ordinary skill in the art to engage in undue experimentation to determine what the threshold value for resistance to change should be and how to measure an organization's resistance (i.e. the querying, quantifying and modifying steps) to change to determine if that organization is resistant to change. Therefore, according to *In re Wand* factor (G), the disclosure is not enabled.

(H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

MPEP 2164.06 sets forth that " The test is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely **routine**, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed. " *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) (citing *In re Angstadt*, 537 F.2d 489, 502-04, 190 USPQ 214, 217-19 (CCPA 1976))."

The examiner notes that the field of change management is not typically given to experimentation. The disclosure itself does not teach or suggest that any experimentation whatsoever is needed for the invention. Therefore, the fact that experimentation would be required to determine what a threshold value should be for

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resistance to change and how to measure that (i.e. the querying, quantifying and modifying steps) in an organization means that this experimentation is undue. As noted above, the values necessary to use and practice the invention both on the organizational measurement side and the threshold side for that type of organization's resistance to change, are lacking by way or either example or direction as to how to determine them. Therefore, according to In re Wand factor (H), the disclosure is not enabled.

Accordingly, because the disclosure of the invention fails on each of the In re Wand factors as discussed above with respect to requiring undue experimentation, the disclosure of the instant application is not enabled.

x. The applicant argues on page 8 that there must be a teaching, suggestion or motivation to combine the references.

The examiner respectfully disagrees.

The cited references are analogous art because they address organizational management issues including measuring the organization's capabilities.

Furthermore, KSR forecloses Applicant's argument that a specific teaching is required for a finding of obviousness. KSR, 127 S.Ct. at 1741, 82 USPQ2d at 1396.

5. The applicant argues on page 9 with respect to claims 1, 15 and 23 that Guinta does not teach the querying, quantifying, modifying and quantifying steps in preparation for implementing a change. The applicant supports this argument by alleging that the corrective action taught by Guinta is not predefined prior to the evaluation and occurring in preparation for the change.

The examiner respectfully disagrees.

The limitation "in preparation for implementing a pre-determined proposed technical change in hardware or software used in a working environment of the organization" is intended use. This limitation does not structurally impact the remaining limitations of the querying, quantifying, modifying and comparing steps.

In response to applicant's argument that Guinta fails to teach the "in preparation for" limitation, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

The examiner notes that the querying step, as it is now recited, does not patentably distinguish between a response that occurs before a technical change, during a technical change, or after a technical change. Even assuming arguendo that Guinta did not teach the steps in preparation for implementing a technical change, as is claimed and argued by the applicant, the difference between Guinta and the applicant's claims are only found in the non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The

recited method steps would be performed the same regardless of the specific data. Further, the structural elements remain the same regardless of the specific data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP § 2106.

6. The applicant argues on pages 9 and 10 with respect to Claims 1, 15 and 23 that Guinta does not teach automatically quantifying the baseline response.

The examiner respectfully disagrees.

The claims cite “querying a hierarchy” followed by a “to obtain a baseline response”. Since the “to obtain” is intended use, the claim does not positively recite that a baseline response is obtained. The examiner contrasts the claim language that is cited with “querying a hierarchy in an organization and obtaining a baseline response”. The latter claim language positively recites what the actual claim language hints at with the intended use recitation. This querying step is followed by the limitation of automatically quantifying the response. Guinta teaches this querying step followed by the automatically quantifying as illustrated in Figures 7A and 7B. Here we see that the baseline response to the question “How well does your organization address this issue” is automatically quantified into a 1 to 100% sliding scale to indicate the degree to which the issue is addressed.

The examiner further notes that even assuming *arguendo*, that Guinta did not teach “automatically quantifying”, the fact that Guinta does teach quantifying a response

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is sufficient to distinguish over claiming the automatic quantifying step because according to *In re Venner* (*In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958)), automating what was previously a manual activity does not patentably distinguish from the prior art².

7. The applicant argues on page 11 with respect to Claims 1, 15 and 23 that Guinta does not teach where its modifier "relates to how responsive members of the hierarchy traditionally are to change to yield a skill score".

The examiner respectfully disagrees.

The use of the modifier taught by Guinta, regardless of what the intended use is, is sufficient to meet the claimed limitations of modifying the quantified score because the differences, if any, between what Guinta teaches and the applicants are claiming are only found in the non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the specific data. Further, the structural elements remain the same regardless of the specific data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP § 2106.

² *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined "old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.).

8. The applicants argue with respect to Claims 1, 15 and 23 on page 11 that Curtiss fails to teach relating to a technical change in the software or hardware used in the working environment of an organization.

The examiner respectfully disagrees.

Guinta teaches making a comparison with a threshold to determine if there are problem areas. Guinta does not expressly teach the specific data recited in claims 1, 15 and 23; however, these differences are only found in the non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the specific data. Further, the structural elements remain the same regardless of the specific data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP § 2106.

9. The applicants argue with respect to Claims 2, 7-10, 14, 16, 22, 24, 27 and 31-33 on page 12 that Guinta does not teach predicting a response to a predetermined proposed change.

The examiner respectfully disagrees.

The examiner notes the language of the claims: "comparing the skill score to the predetermined required score to determine a predicted response to the technical

change". The functional aspect of this language is a comparing step. The limitations following "to" are intended use. As it is currently recited, the claim is nearly indefinite, because it is not clear how the comparison results in the determination claimed. Even if the claim did not contain an intended use phrase, Guinta's comparison also predicts response to change, because the highlighting of areas that require corrective action indicate that those areas would be problem areas in the future. As is noted below, Curtiss teaches making a comparison to predict a response to a technical change. The rejection is made over a combination of Curtiss and Guinta.

10. The applicants argue with respect to Claims 6, 13, 20 and 29 on page 12 that a prima facie case of obviousness has not been made with respect to answering questions in a yes/no/sometimes format. The applicants further allege that the failure to incorporate the Ahmed reference (provided in support of Official Notice) into the Office Action.

The examiner respectfully disagrees.

Guinta teaches providing a "yes" and "no" answers to queries of an organizational hierarchy. While Guinta does not teach "sometimes" as an answer, Official Notice was taken that this is provided in surveys to indicate something other than a "yes" or a "no" answer. The motivation to incorporate this into Guinta was part of the subject of Official Notice, that "sometimes" provides a way for a response to a query to indicate something happening occasionally. Thus, a prima facie case of obviousness was made. As far as the applicant's assertion that it is not obvious to incorporate a

yes/no/sometimes answer into a query to determine a baseline response to technical change in an organization, the examiner notes that the limitation "to predict a response" is intended use and does not further limit the claim.

11. The applicant argues on page 13 with respect to Claims 18 and 28 that there is no motivation to combine Guinta and Bobic.

The examiner respectfully disagrees.

Guinta and Bobic are analogous art because they both address managing organizational change. Guinta teaches measuring an organization to determine how capable the organization is in terms of meeting ISO requirements. The responses of Guinta provide an indication for an organization the extent to which it meets ISO guidelines for process certification. These ISO process certifications provide an indication for how robust a process is in a company. Failure to meet ISO guidelines is known in the art to indicate that a company's processes (see column 14 of Guinta line 37-40 – the failure of the process here in terms of ensuring that the design is compatible with the manufacturing process would indicate a failure in terms of producing a quality product, since the product is not feasible to be made, i.e. thus failure to meet ISO certification provides a prediction at least here of what a response to a change would be, e.g. introducing a new product into manufacturing). The incorporation of Bobic's "stiffness modifier" does not destroy either Guinta or Bobic but provides an additional layer of information in that the predicted response then is given in terms of how resistant to change the organization and individual are. Thus in providing a predictable result by

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incorporating those teachings into Guinta, there is sufficient motivation by one of ordinary skill in the art to combine those teachings to render the claimed invention obvious.


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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Art Unit 3623

January 9, 2008

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